AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (original). An isolated nucleic acid comprising any one of SEQ ID NOs: 1-4 and 9-126, or of a complementary nucleotide sequence.

2 (original). An isolated nucleic acid comprising at least eight consecutive nucleotides of a nucleotide sequence of any one of SEQ ID NOs: 1-4 and 9-126, or of a complementary nucleotide sequence.

3 (original). An isolated nucleic acid comprising at least 80% nucleotide identity with a nucleic acid comprising any one of SEQ ID NOs: 1-4 and 9-126, or of a complementary nucleotide sequence.

4 (original). The isolated nucleic acid according to claim 3, wherein the nucleic acid has 85%, 90%, 95%, or 98% nucleotide identity with the nucleic acid comprising any one of SEQ ID NOs: 1-4 and 9-126, or of a complementary nucleotide sequence.

5 (original). An isolated nucleic acid that hybridizes under high stringency conditions with a nucleic acid comprising any one of SEQ ID NOs: 1-4 and 9-126 or of a complementary nucleotide sequence.

6 (original). An isolated nucleic acid comprising a nucleotide sequence as depicted in any one of SEQ ID NOs: 1-4 and 9-126 or of a complementary nucleotide sequence.

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7 (original). A nucleotide probe or primer specific for any one of ABCA5, ABCA6, ABCA9, and ABCA10 genes, wherein the nucleotide probe or primer comprises at least 15 consecutive nucleotides of a nucleotide sequence of any one of SEQ ID NOs: 1-4 and 9-126 or of a complementary nucleotide sequence.

8 (original). A nucleotide probe or primer specific for an ABCA5 gene, wherein the nucleotide probe or primer comprises a nucleotide sequence of any one of SEQ ID NOS:127-144 or a complementary nucleotide sequence.

9 (original). A nucleotide probe or primer specific for an ABCA6 gene, wherein the nucleotide probe or primer comprises a nucleotide sequence of any one of SEQ ID NOs: 145-172, or of a complementary nucleotide sequence.

10 (original). A nucleotide probe or primer specific for an ABCA9 gene, wherein the nucleotide probe or primer comprises a nucleotide sequence of any one of SEQ ID NOs: 173-203, or of a complementary nucleotide sequence.

11 (original). A nucleotide probe or primer specific for an ABCA10 gene, wherein the nucleotide probe or primer comprises a nucleotide sequence of any one of SEQ ID NOs: 204-217 or of a complementary nucleotide sequence.

12 (original). A method of amplifying a region of the nucleic acid according to claim 1, wherein the method comprises:

a) contacting the nucleic acid with two nucleotide primers, wherein the first nucleotide primer hybridizes at a position 5' of the region of the nucleic acid, and the second

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nucleotide primer hybridizes at a position 3' of the region of the nucleic acid, in the presence of reagents necessary for an amplification reaction; and

b) detecting the amplified nucleic acid region.

13 (original). A method of amplifying a region of the nucleic acid according to claim 12, wherein the two nucleotide primers are selected from the group consisting of

a) a nucleotide primer comprising at least 15 consecutive nucleotides of a nucleotide sequence of any one of SEQ ID NOs: 1-4 and 9-126 or of a complementary nucleotide sequence;

b) a nucleotide primer according to claim 7;

c) a nucleotide primer comprising a nucleotide sequence of any one of SEQ ID NOs: 127-217, or a nucleic acid having a complementary sequence.

14 (original). A kit for amplifying the nucleic acid according to claim 1, wherein the kit comprises:

a) two nucleotide primers whose hybridization position is located respectively 5' and 3' of the region of the nucleic acid; and, optionally,

b) reagents necessary for an amplification reaction.

15 (original). The kit according to claim 14, wherein the two nucleotide primers are selected from the group consisting of

a) a nucleotide primer comprising at least 15 consecutive nucleotides of a nucleotide sequence of any one of SEQ ID NOs: 1-4 and 9-126, or of a complementary nucleotide sequence;

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b) nucleotide primer according to claim 7;

c) nucleotide primer comprising a nucleotide sequence of any one of SEQ ID NOs: 127-217, or a nucleic acid having a complementary sequence.

16 (original). The nucleotide probe or primer according to claim 7, wherein the nucleotide probe or primer comprises a marker compound.

17 (original). A method of detecting a nucleic acid according to claim 1, wherein the method comprises:

a) contacting the nucleic acid with a nucleotide probe selected from the group consisting

1) a nucleotide probe comprising at least 15 consecutive nucleotides of a nucleotide sequence of any one of SEQ ID NOs: 1-4 and 9-126, or of a complementary nucleotide sequence;

2) a nucleotide primer according to claim 7;

3) a nucleotide probe comprising a nucleotide sequence of any one of SEQ ID NOs: 127-217, or of a complementary nucleotide sequence; and

b) detecting a complex formed between the nucleic acid and the probe.

18 (original). The method of detection according to claim 17, wherein the probe is immobilized on a support.

19 (original). A kit for detecting the nucleic acid according to claim 1, wherein the kit comprises

a) a nucleotide probe selected from the group consisting of

1) a nucleotide probe comprising at least 15 consecutive nucleotides of a nucleotide

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sequence of any one of SEQ ID NOs: 1-4 and 9-126, or of a complementary nucleotide sequence;

2) a nucleotide primer according to claim 7; and

3) a nucleotide probe comprising a nucleotide sequence of any one of SEQ ID NOs: 127-217, or of a complementary nucleotide sequence, and, optionally,

b) reagents necessary for a hybridization reaction.

20 (original). The kit according to claim 19, wherein the probe is immobilized on a support.

21 (original). A recombinant vector comprising the nucleic acid according to claim 1.

22 (original). The vector according to claim 21, wherein the vector is adenovirus.

23 (original). A recombinant host cell comprising the recombinant vector according to claim 21.

24 (original). A recombinant host cell comprising the nucleic acid according to claim 1.

25 (original). An isolated nucleic acid encoding a polypeptide comprising an amino acid sequence of any one of SEQ ID NOS: 5-8.

26 (original). A recombinant vector comprising the nucleic acid according to claim 25.

27 (original). A recombinant host cell comprising he nucleic acid according to claim 25.

28 (original). A recombinant host cell comprising the recombinant vector according to claim 26.

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29 (original). An isolated polypeptide selected from the group consisting of

a) a polypeptide comprising an amino acid sequence of any one of SEQ ID NOs: 5-8;

b) a polypeptide fragment or variant of a polypeptide comprising an amino acid sequence of any one of SEQ ID NOs: 5-8; and

c) a polypeptide homologous to a polypeptide comprising amino acid sequence of any one of SEQ ID NOS: 5-8.

30 (original). An antibody directed against the isolated polypeptide according to claim 29.

31 (original). The antibody according to claim 30, wherein the antibody comprises a detectable compound.

32 (original). A method of detecting a polypeptide, wherein the method comprises

a) contacting the polypeptide with an antibody according to claim 31; and

b) detecting an antigen/antibody complex formed between the polypeptide and the antibody.

33 (original). A diagnostic kit for detecting a polypeptide, wherein the kit comprises

a) the antibody according to claim 31; and

b) a reagent allowing detection of an antigen/antibody complex formed between the polypeptide and the antibody.

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34 (original). A composition comprising the nucleic acid according to claim 1 and a physiologically-compatible excipient.

35 (original). A composition comprising the recombinant vector according to claim 21 and a physiologically-compatible excipient.

36 (original). Use of the nucleic acid according to claim 1 for the manufacture of a medicament intended for the prevention and/or treatment of a subject affected by a dysfunction in the reverse transport of cholesterol.

37 (original). Use of a recombinant vector according to claim 21 for the manufacture of a medicament for the prevention and/or treatment of subjects affected by a dysfunction in the lipophilic substance transport.

38 (original). Use of any one of isolated ABCA5, ABCA6, ABCA9, and ABCA10 polypeptides comprising an amino acid sequence of SEQ ID NOS: 5-8 for the manufacture of a medicament intended for the prevention and/or treatment of subjects affected by a dysfunction in the lipophilic substance transport.

39 (original). A composition comprising a polypeptide comprising an amino acid sequence of any one of SEQ ID NOs: 5-8, and a physiologically-compatible excipient.

40 (original). Use of any one of isolated ABCA5, ABCA6, ABCA9, and ABCA10 polypeptides comprising an amino acid sequence of any one of SEQ ID NOs: 5-8 for screening an active ingredient for the prevention or treatment of a disease resulting from a dysfunction in the lipophilic substance transport.

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41 (original). Use of a recombinant host cell expressing any one of the ABCA5, ABCA6, ABCA9, and ABCA10 polypeptides comprising an amino acid sequence of SEQ ID NOs: 5-8 for screening an active ingredient for the prevention or treatment of a disease resulting from a dysfunction in the lipophilic substance transport.

42 (original). A method of screening a compound active on cholesterol metabolism, an agonist, or an antagonist of any one of the ABCA5, ABCA6, ABCA9, and ABCA10 polypeptides, wherein the method comprises

a) preparing a membrane vesicle comprising at least one of the ABCA5, ABCA6, ABCA9, and ABCA10 polypeptides and a lipid substrate comprising a detectable marker;

b) incubating the vesicle obtained in step a) with an agonist or antagonist candidate compound;

c) qualitatively and/or quantitatively measuring a release of the lipid substrate comprising the detectable marker; and

d) comparing the release of the lipid substrate measured in step b) with a measurement of a release of a labeled lipid substrate by a membrane vesicle that has not been previously incubated with the agonist or antagonist candidate compound.

43 (original). A method of screening a compound active on cholesterol metabolism, an agonist, or an antagonist of any one of ABCA5, ABCA6, ABCA9, and ABCA10 polypeptides, wherein the method comprises

a) incubating a cell that expresses at least one of the ABCA5, ABCA6, ABCA9, and ABCA10 polypeptides with an anion labeled with a detectable marker;

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b) washing the cell of step a) whereby excess labeled anion that has not penetrated into the cell is removed;

c) incubating the cell obtained in step b) with an agonist or antagonist candidate compound for any one of the ABCA5, ABCA6, ABCA9, and ABCA10 polypeptide;

d) measuring efflux of the labeled anion from the cell; and

e) comparing the efflux of the labeled anion determined in step d) with efflux of a labeled anion measured with a cell that has not been previously incubated with the agonist or antagonist candidate compound.

44 (original). An implant comprising the recombinant host cell according to claim 23.

45. (new). A cluster of genes on chromosome 17q24, wherein the cluster comprises the genes ABCA5, ABCA6, ABCA9 and ABCA10.

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